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PREPARATIONS FOR THE UNITED NATIONS CONFERENCE ON ENVIRONMENT AND DEVELOPMENT ON THE BASIS OF GENERAL ASSEMBLY RESOLUTION 44/228 AND TAKING INTO ACCOUNT OTHER RELEVANT GENERAL ASSEMBLY RESOLUTIONS: CROSS-SECTORAL ISSUES

Strengthening the role of major groups

(Section III, chapters 1 to 9 of Agenda 21)

Report of the Secretary-General of the Conference

1. Critical to the effective implementation of the objectives, policies and mechanisms agreed to by Governments in all programme areas of Agenda 21 will be the commitment and genuine involvement of all social groups.

2. The evolution of a mentality and the practical actions essential to the achievement of environmentally sound and sustainable development will require new levels and forms of partnership and dialogue between all actors. To realize the full potential contribution and assure the mutual benefit of all social groups in this process, due recognition must first be given to both the rights and responsibilities of those social groups.

3. The programme areas discussed below address the means for moving towards real social partnership in support of common efforts to build environmental and economic security.

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* See A/CONF.151/PC/96.

I. GLOBAL ACTION FOR WOMEN TOWARDS SUSTAINABLE AND EQUITABLE DEVELOPMENT

(Section III, chapter 1 of Agenda 21)

A. Introduction

4. This programme area was prepared on the basis of Preparatory Committee decision 3/5, entitled "Women in environment and development" (see A/46/48 (Part II), annex I), in which the Preparatory Committee requested the Secretary-General of the Conference "to ensure that key elements relating to women's critical economic, social and environmental contributions to sustainable development be addressed at the United Nations Conference on Environment and Development as a distinct cross-cutting issue in addition to being mainstreamed in all the substantive work and documentation, particularly Agenda 21, the Earth Charter and the conventions". Other Agenda 21 programmes of special relevance to women include sustainable agriculture and rural development, freshwater resources, combating poverty, education and health. Recommendations from relevant meetings on women in environment and sustainable development also requested by decision 3/5 will be submitted in document A/CONF.151/PC.114. 1/

B. Programme area

1. Basis for action

5. The international community has endorsed several plans of action and conventions for the full, equal and beneficial integration of women in all development activities, particularly the Nairobi Forward-looking Strategies for the Advancement of Women, 2/ which emphasize women's participation in national and international ecosystem management and control of environmental degradation. Several conventions, including the Convention on the Elimination of All Forms of Discrimination against Women (Assembly resolution 34/180, annex), as well as ILO and UNESCO conventions, have also been adopted to end gender-based discrimination and ensure women access to land and other resources, education and safe and equal employment. Also relevant are the 1990 World Declaration on the Survival, Protection and Development of Children and its Plan of Action (A/45/625, annex). Effective implementation of these programmes will depend on the active involvement of women in economic and political decision-making and will be critical to the successful implementation of Agenda 21. 3/

2. Objectives

6. The following objectives are proposed for national Governments:

(a) To increase the number of women decision makers, planners, technical advisers, managers and extension workers in environment and development fields; 4/

(b) To complete by the year 2000 a review of needed changes to eliminate constitutional, legal, administrative, cultural, behavioural and attitudinal obstacles to women's full participation in sustainable development and in public life;

(c) To establish by the year 1994, monitoring mechanisms at the national and international levels to assess the implementation and impact of development and environment policies and programmes on women and ensure their contributions and benefits;

(d) To review and revise curriculum and other education material with a view to disseminating gender-relevant knowledge and valuation of women's roles through education and training institutions in collaboration with non-governmental organizations;

(e) To formulate clear government policies and national guidelines for the promotion of women's literacy, education, training, nutrition, health, and their participation in management of the environment, particularly as it pertains to their access to resources.

3. Activities

7. Governments should take active steps to implement the following:

(a) Measures to review policies and establish plans to increase the number of women involved as decision makers, planners, managers and technical advisers in the development and implementation of policies and programmes for sustainable development;

(b) Measures to strengthen and empower women's bureaux and women's groups in enhancing capacity building for sustainable development; 5/

(c) Measures to eliminate female illiteracy and to expand the enrolment of women and girls in educational institutions until it reaches publicly articulated goals for each level, including universal primary and secondary education for girl children and for women; 6/

(d) Programmes to promote reduction of the heavy workload of women and girl children through improved technologies, accessible and clean water, efficient fuel supply and adequate sanitation facilities;

(e) Programmes to establish and strengthen preventive and curative health facilities, including promotion of breast-feeding, pre-natal care and family planning services to support women's productive and reproductive roles and well-being with special attention to the need for providing equal and improved services for all children and to reduce the risk of maternal mortality and sickness; 7/

(f) Programmes to support and strengthen equitable employment opportunities for women in the formal and informal sectors with adequate economic, political and social support systems and services, particularly day care facilities; 8/

(g) Programmes to develop consumer awareness and promote the active participation of women, underlining their crucial role in achieving the necessary change in consumption and production patterns, particularly in industrialized countries; 9/

(h) Programmes to eliminate persistent negative images, stereotypes, attitudes and prejudices against women through changes in socialization patterns, the media, advertising, and formal and non-formal education; 10/

(i) Measures to monitor progress made in these areas and prepare a review and appraisal report to be submitted to the 1995 World Conference on Women. 11/

8. Governments should ratify all conventions pertaining to women if they have not already done so. Those that have ratified conventions should enforce and establish legal, constitutional and administrative procedures to transform agreed rights into domestic legislation and adopt measures to implement them in order to strengthen women's legal capacity for sustainable development.

9. States Parties to the Convention on the Elimination of All Forms of Discrimination against Women should review and suggest amendments to it by the year 2000, with a view to strengthening its elements related to environment and development giving special attention to the issue of access and entitlements to natural resources, technology, creative forms of banking, and low-cost housing facilities and the control of pollution and toxicity in the home and work place.

(a) Research, data collection and information dissemination

10. Countries should develop databases, information systems and action-oriented research and policy analyses with the collaboration of academic institutions on the following:

(a) Women's knowledge and experience of the management and conservation of natural resources for incorporation in the databases and information systems for sustainable development; 12/

(b) The impact of structural adjustment programmes on women. In research done on structural adjustment programmes, special attention should be given to the differential impact on women especially in terms of cut-backs in social services, education and health and in the removal of subsidies on food and fuel; 13/

(c) The impact of environmental degradation, particularly drought, desertification, toxic chemicals and war on women;

(d) Analysis of the structural linkages between gender relations, environment and development.

(b) International and regional cooperation and coordination

11. The Secretary-General could be requested to review the adequacy of United Nations institutions with a special focus on the role of women in meeting development and environment objectives and make recommendations for strengthening their capacities. Institutions which require special attention in this area include the Division for the Advancement of Women, UNIFEM, INSTRAW and the women's programmes of regional commissions. The review could consider how environment and development programmes of each United Nations organization could be strengthened to implement Agenda 21 and how to incorporate the role of women in programmes and decisions related to sustainable development. 14/

12. Each United Nations agency should be requested to review the number of women at senior level and decision-making posts and, where appropriate, adopt programmes to increase the numbers. 15/

13. UNIFEM should establish regular consultations with donors in collaboration with UNICEF, looking towards fully adequate funding for operational programmes and projects on sustainable development that will strengthen the participation of women, especially low-income women, in sustainable development and in decision-making.

4. Means of Implementation 16/

14. Finance and cost evaluation: Studies suggest that the actual budgeting process in some countries results in underfunding of activities related to the participation of women in sustainable development. The following action would be necessary:

(a) At the national and international levels, financial policies and programme budgets of Governments, international organizations and aid agencies should be re-oriented and executed to ensure adequate funding for greater gender equity on an annual basis in the period from 1993-2000;

(b) There will be a need for allocation of adequate funds by each country to conduct national reviews and prepare reports for the 1995 World Conference on Women. An average cost of $30,000 is estimated at the national level;

(c) Establishing gender-sensitive national databases and information and research activities would require $250,000 a year for two years on the average for each country, and $10,000 a year thereafter as expenditure for maintenance;

(d) Funding for UNIFEM could be increased by about $10 million to give it enhanced capacity to manage technical cooperation activities. As part of an overall increase in funding for projects targeting issues related to women in sustainable development a strengthened UNIFEM would be able to manage projects in excess of $100 million annually by the year 2000.

15. The Secretary-General's review and production of a report would require additional staffing in the United Nations system for a period of at least two years at a cost not to exceed $2 million.

II. STRENGTHENING THE ROLE OF YOUTH

(Section III, chapter 2 of Agenda 21)

A. Introduction

16. The present chapter is based on General Assembly resolution 44/228 as well as Preparatory Committee decision 1/25 on the environment and development and Preparatory Committee decisions 1/28 and 2/6 on cross-sectoral issues promoting the effective participation of young people in environment and development issues, and recognizing the valuable role youth can and should play in the protection of the environment and the promotion of economic and social development. Youth (see A/45/46, annex I, and A/46/48, vol. I, annex I) 17/ comprise nearly 30 per cent of the world's population. The involvement of today's youth in environment and development decision-making and in the implementation of programmes is critical to the long-term success of Agenda 21. (See also Preparatory Committee decision 3/6, entitled "Youth in environment and development" (A/46/48 (Part II), annex I).)

B. Programme area: Advancing the role of youth and actively involving them in the protection of the environment and the promotion of economic and social development

1. Basis for action

17. Youth are often referred to as those who will inherit the planet. Looking to that day, they need to participate actively today in decision-making processes that have implications for their future. In addition to their intellectual contribution and their ability to mobilize support they bring unique perspectives which need to be taken into account.

18. Numerous actions and recommendations within the international community have been proposed, 18/ to ensure that youth are accorded the right to a secure and healthy future, including environmental quality, improving standards of living, and access to education and employment. These need to be addressed in development planning.

2. Objectives

19. Each country, by 1995, should establish with their youth communities 19/ a mechanism for mutually productive dialogue allowing youth easy access to participation in the decision-making processes of local, regional and national governments. This should include the formulation of explicit government guidelines and policies on the promotion of youth issues, particularly those relating to environment and development.

20. Each country, by 1995, should establish a national youth advisory board, comprised wholly of youth, to establish liaison and build dialogue between the youth community and government ministries, to advise Governments of the youth perspectives on issues, and to establish official mechanisms for youth monitoring of government decisions, including the applications of Agenda 21 (see sect. IV below).

21. Each country, by 1999, should ensure that more than 50 per cent of its youth are enrolled in, or have access to, appropriate secondary education or equivalent educational or vocational training programmes.

22. Each country, by 1999, should decrease current levels of youth unemployment by 50 per cent.

23. The United Nations should create, by 1995, an international youth advisory council, which should report to the Secretary-General of the United Nations.

3. Activities

24. National Governments should take measures:

(a) To establish procedures to include youth in the decision-making process: by 1993, in a process involving youth, to review the consultation opportunities for youth in government decision-making, and to establish procedures to include youth, at the local, regional and national levels. Governments should establish positions to be held by youth on government delegations and within government ministries;

(b) To create in consultation with existing youth organizations national youth advisory councils to promote dialogue with youth and youth organizations in evaluating national development plans; 20/

(c) To consider for incorporation into relevant policies, the recommendations of international, regional and local youth conferences and other forums that offer youth perspectives on social and economic development and resource management; 21/

(d) To sign and ratify the 1990 Convention on the Rights of the Child by the year 1995, implementing this by addressing the basic needs of youth; 22/

(e) To ensure access for all youth to secondary education, wherever necessary providing alternative learning structures; to ensure that education reflects the social needs of youth and incorporates the concepts of environmental awareness and sustainable development throughout the curricula; and to expand vocational training, implementing innovative methods aimed at increasing practical skills and environmental competency;

(f) In cooperation with relevant ministries and organizations, including representatives of youth, to develop and financially support strategies for creating alternative employment opportunities and provide required training;

(g) To establish and support task forces including youth and youth non-governmental organizations to develop education and awareness programmes specifically targeted to the youth population, on critical issues pertaining to youth. 23/ These task forces should use formal and non-formal educational methods to reach a maximum youth audience. National and local media, non-governmental organizations, businesses and other organizations should assist in these task forces;

(h) To support administrative and financial requirements of youth programmes, networks, youth non-governmental organizations and national youth organizations in order to assist in their communication with the government sector, as well as with other youth-coordinated projects. Aid agencies and recipient Governments should consider the inclusion of youth-related programmes in project portfolios and encourage involvement of youth in project identification, design, implementation and follow-up.

25. The United Nations and international agencies should take measures to establish an international youth advisory council by the year 1993. The council would have the following responsibilities:

(a) To review existing youth programmes among United Nations agencies and consider how systems for involving youth might be improved;

(b) To establish liaison among agencies that currently have youth programmes, and advise those that do not;

(c) To act as an information clearinghouse for Governments, youth organizations, intergovernmental organizations, non-governmental organizations and United Nations agencies on current youth positions and activities; monitor and evaluate the applications of Agenda 21;

(d) To coordinate an international biennial event to assess the global state of youth and youth activities;

(e) To advise the Secretary-General concerning positions of youth on environment and development issues;

(f) To establish a committee composed of youth to administer the distribution of the United Nations Youth Fund to youth projects, particularly focusing on the needs of youth from developing regions.

4. Means of implementation

26. Financing and cost evaluation: Financing requirements for most of the activities are included in estimates for other programmes. Annual funding of about $1.5 million would be needed for a United Nations international youth advisory board.

III. RECOGNIZING AND STRENGTHENING THE ROLE OF INDIGENOUS PEOPLES

(Section III, chapter 3 of Agenda 21)

A. Introduction

27. The present chapter has been prepared in response to Preparatory Committee decision 3/7 entitled "Indigenous people and local communities" (see A/46/48 (Part II), annex I), which concerns the involvement of indigenous peoples in programmes for sustainable development.

B. Programme area

1. Basis for action

28. Indigenous peoples 24/ tend to share a profound attachment to and relationship with their ancestral territories, natural resources and environment. In view of the centrality of the natural environment and its sustainable development to the cultural, social, economic and physical well-being of indigenous peoples, national and international efforts to implement environmentally sound and sustainable development should recognize, accommodate, promote and strengthen the role of indigenous peoples.

29. The goals inherent in the following objectives and activities are already contained in the Indigenous and Tribal Peoples Convention (No. 169) of the International Labour Organisation (ILO) and are being incorporated into the draft universal declaration on the rights of indigenous peoples, being prepared by the United Nations Working Group on Indigenous Populations of the Commission on Human Rights. The International Year for the World's Indigenous

People (1993) presents a timely opportunity to mobilize further the necessary international technical and financial cooperation.

2. Objectives

30. In full cooperation with indigenous peoples, Governments should aim at fulfilling the following objectives:

(a) To establish a process to empower indigenous peoples through measures including (i) the adoption of appropriate legal instruments at the national and international levels; (ii) the protection of the habitats of indigenous peoples from environmentally unsound development projects (or environmentally sound projects affecting them which may violate their fundamental social and cultural values); (iii) recognition and promotion of their values, traditional knowledge and resource management practices as contributions to environmentally sound and sustainable development; and (iv) commitment of additional resources to capacity-building for indigenous communities to ensure their sustainable self-development;

(b) To establish mechanisms at the international, regional, national and local levels to strengthen the active participation of indigenous peoples in the formulation of policies, laws and programmes relating to resource management and other development processes which may affect them;

(c) To involve indigenous peoples at the national and local levels in resource management and conservation strategies and other relevant programmes established to support and monitor sustainable development strategies, such as those suggested in other programme areas of Agenda 21.

3. Activities

31. Indigenous peoples require greater control over their habitats, self-management of their resources, participation in development decisions affecting them, and protection of indigenous cultural property in order for them to sustain and develop traditional and other management practices within a contemporary framework. The following are some of the specific measures which Governments could take:

(a) To ratify and apply the existing international conventions relevant to indigenous peoples (where not yet done), and support the adoption by the United Nations General Assembly of a declaration on indigenous rights; 25/

(b) To develop international and national legal instruments (in conjunction with indigenous peoples) which will protect indigenous intellectual property rights as well as customary and traditional legal and administrative systems.

32. United Nations agencies, other international development and finance agencies and Governments should, in collaboration with indigenous peoples,

take the following measures, inter alia, to incorporate the values, views and knowledge of indigenous peoples in resource management and other policies and programmes which may affect them:

(a) To appoint a "focal point" officer within each international agency, and develop a procedure within and between operational agencies for ensuring the coherent and coordinated incorporation of indigenous peoples' views in the design and implementation of policies and programmes affecting them, and other relevant programmes;

(b) To provide additional technical and financial assistance for capacity-building programmes to support the sustainable self-development of indigenous peoples;

(c) To implement research and education programmes aimed at:

(i) Achieving a better understanding of indigenous peoples' krowledge and management experience related to the environment, and applying this to contemporary development challenges;

(ii) Increasing the efficiency of indigenous peoples' resource management systems, for example, by making available suitable technological innovations;

(d) To collaborate with indigenous peoples in resource management and conservation strategies (such as the Global Environmental Facility, and Tropical Forest Action Plans) and other programme areas of Agenda 21, including programmes to collect, analyse and use data and other information in support of sustainable development projects.

33. Governments, in cooperation with indigenous peoples should:

(a) Develop national mechanisms to consult and collaborate with indigenous peoples with a view to reflecting their needs and incorporating their values, traditional and other knowledge and practices in national policies and programmes in the field of natural resource management and conservation and other development programmes affecting them;

(b) Cooperate at the regional level, where appropriate, to address common indigenous issues with a view to recognizing and strengthening their participation in sustainable and equitable development. 26/

4. Means of implementation

34. Financing and cost evaluation: To implement the above activities, the United Nations system will require about $3 million annually for institutional strengthening.

35. Legal and administrative frameworks: National Governments should incorporate, in collaboration with the indigenous peoples affected, the rights

and responsibilities of indigenous peoples in national legal frameworks, including recognition of the need to protect traditional habitats from unsustainable and inequitable development, and secure their access to and control over both traditional lands and natural resources. Developing countries may require technical assistance to implement these activities, such as in the demarcation of traditional territories.

36. Human resource development: International development agencies and national Governments should commit additional resources to education and training for indigenous peoples to develop their capacities to achieve their sustainable self-development, contribute to and participate in sustainable and equitable development at the national level. Particular attention should be given to strengthening the role of indigenous women.

IV. NON-GOVERNMENTAL ORGANIZATIONS: PARTNERS FOR SUSTAINABLE DEVELOPMENT

(Section III, chapter 4 of Agenda 21)

A. Introduction

37. The present chapter has been prepared on the basis of General Assembly resolution 44/228 and Preparatory Committee decision 3/2 entitled "Structure and organization of Agenda 21 (see A/46/48 (Part II), annex I).

B. Programme area

1. Basis for action

38. One of the major challenges facing the world community as it seeks to replace unsustainable development patterns with environmentally sound and sustainable development is the need to activate a sense of common purpose on behalf of all sectors of society. The chances of forging such a sense of purpose will depend on the willingness of all sectors to participate in genuine social partnership and dialogue, while recognizing the independent roles, responsibilities and special capacities of each.

39. Non-governmental organizations (NGOs) 27/ possess well established and diverse experience, expertise, and capacity in fields which will be of particular importance to the implementation and monitoring of environmentally sound, equitable, socially responsive and sustainable development, as envisaged throughout Agenda 21. 28/ The community of NGOs, operating at the international, national and local levels, therefore offers a global network which should be tapped, enabled and strengthened in support of efforts to achieve these common goals.

40. To ensure that the full potential contribution of NGOs is realized, the fullest possible communication and cooperation between international

organizations, national and local governments, and NGOs should be promoted in institutions mandated, and programmes designed, to carry out Agenda 21. NGOs will also need to foster cooperation and communication among themselves to reinforce their effectiveness as actors in the implementation of sustainable development.

2. Objectives

41. With a view to strengthening the role of NGOs as social partners, the United Nations system and Governments should, by 1994, in consultation with NGOs, review official procedures and mechanisms for the substantive involvement of NGOs at all levels from policy and decision-making to implementation.

42. By 1995, a mutually productive dialogue should be established at the national level with independent, self-organized groupings of NGOs to recognize and enable their roles in implementing environmentally sound and sustainable development.

43. The substantive participation of NGOs should be ensured in the conception, establishment, implementation and evaluation of official mechanisms and procedures designed to monitor the implementation of Agenda 21 at the international, national and local levels.

3. Activities

44. The United Nations system, including international finance and development agencies, and all intergovernmental organizations should, in consultation with NGOs, take measures to:

(a) Review and report on ways to enhance existing procedures and mechanisms for substantive NGO contributions to policy design, decision-making, implementation and evaluation at the individual agency level, in inter-agency discussions and in United Nations conferences;

(b) On the basis of (a), enhance existing or where they do not exist establish mechanisms and procedures within each agency to draw on the expertise and views of NGOs in policy and programme design, implementation and evaluation; 29/

(c) Review levels of funding and administrative support for NGOs and the extent and effectiveness of NGO involvement in project and programme implementation, with a view to augmenting their role as social partners, and developing valuable institutional capacities;

(d) Design open and effective means to achieve the substantive participation of NGOs in any official procedures and mechanisms established to monitor the implementation of Agenda 21 at the international and national levels;

(e) Enable the development by NGOs of independent systems contributing to the monitoring and evaluation of policies and programmes designed to implement Agenda 21, including support for developing country NGO systems;

(f) Take into account the findings of independent NGO monitoring systems and evaluation processes in relevant reports of the Secretary-General to the General Assembly, and all pertinent United Nations agencies and intergovernmental organizations, concerning implementation of Agenda 21; 30/

(g) Provide adequate access for NGOs to accurate and timely data and information to ensure the effectiveness of NGO programmes and activities and of their roles in support of sustainable development. 31/

45. National Governments should take measures to:

(a) Establish or enhance an existing mutually productive dialogue with independent, self-organized groupings of NGOs representing all social sectors, which could serve to: (i) consider the rights and responsibilities of NGOs; (ii) efficiently channel integrated NGO inputs to the governmental policy development process; and (iii) coordinate the NGO role in implementing national policies at the programme level;

(b) Encourage and enable partnership and dialogue between local NGOs and local authorities in activities aimed at sustainable development;

(c) Involve NGOs in any national mechanisms or procedures established to carry out Agenda 21, making best use of their particular capacities in the fields of education, poverty alleviation and environmental protection and rehabilitation; 32/

(d) Take into account the findings of independent NGO monitoring mechanisms in the design and evaluation of official policies concerning the implementation of Agenda 21 at the national and local government levels;

(e) Review government education systems to identify ways to include and expand the particular capacities of NGOs in the field of education and public awareness; 33/

(f) Make available to NGOs the data and information necessary for their effective contribution to research and to the design, implementation and evaluation of programmes. 34/

4. Means of implementation

(a) Financing and cost evaluation

46. Depending on the outcome of review processes and the evolution of views as to how best to build partnership and dialogue between official organizations and NGO groups, relatively limited, but unpredictable, costs

will be involved at the international and national levels in enhancing consultative procedures and mechanisms. NGOs will also require additional funding in support of their establishment of, improvement of or contributions to Agenda 21 monitoring systems. These costs will be significant but cannot be reliably estimated on the basis of existing information.

(b) Capacity-building

47. The United Nations system and other intergovernmental organizations will need to provide increased financial and administrative support for NGO systems contributing to the monitoring and evaluation of Agenda 21 programmes, and provide training for NGOs (and assist NGOs to develop their own training programmes) at the international and regional levels to enhance their partnership role in programme design and implementation (see Agenda 21, chapter IV.5 on capacity-building).

48. Governments will need to promulgate any legislative measures necessary to enable the establishment by NGOs of consultative groups, and to ensure the right of NGOs to protect the public interest through legal action.

V. LOCAL AUTHORITIES INITIATIVES IN SUPPORT OF AGENDA 21

(Section III, Chapter 5 of Agenda 21)

A. Introduction

49. The present chapter has been prepared in response to Preparatory Committee decision 3/3 entitled "Human settlements" (see A/46/48 (Part II), annex I), in particular paragraph 8 (c) (xi) thereof, in which the Preparatory Committee called for "stimulation of the locally available intellectual, financial and private-sector potential for human settlements planning and management".

B. Programme area

1. Basis for action

50. Because so many of the problems being addressed by Agenda 21 have their roots in local activities, the participation and cooperation of local authorities will be a determining factor in fulfilling its objectives. Local authorities construct, operate and maintain economic, social and environmental infrastructure, oversee planning processes, establish local environmental policies and regulations and assist in implementing national and sub-national environmental policies. As the level of governance closest to the people, they play a vital role in educating and mobilizing the public for sustainable development.

2. Objectives

51. The following objectives are proposed for this programme area:

(a) By 1996, most local authorities in each country should have undertaken a consultative process with their populations and achieved a consensus on a local Agenda 21 for the community;

(b) By 1993, the international community should have initiated a consultative process aimed at the mobilization of increased capital and technical cooperation funding for projects initiated by local authorities;

(c) By 1994, representatives of associations of cities and other local authorities should have increased levels of cooperation and coordination with the goal of enhancing the exchange of information and experience among local authorities.

3. Activities

52. Each local authority should enter into a dialogue with its citizens, local organizations and private enterprises and adopt a local Agenda 21. Through consultation and consensus building local authorities would learn from citizens and local civic, business and industrial organizations and acquire the information needed for formulating the best strategies. The process of consultation would increase household awareness of sustainable development issues. Local authority programmes, policies, laws and regulations to achieve Agenda 21 objectives would be assessed and modified based on adopted local Agenda 21 programmes. Strategies can also be used in supporting funding proposals for local, national, regional and international funding. 35/

53. UNDP, in the context of its Urban Management Programme, could consider forming a partnership with Habitat, UNEP, the World Bank, regional banks, the International Union of Local Authorities and with other relevant international partners, with representatives of organizations of cities and other local authorities, with representatives of bilateral donors and with representatives of relevant independent sector organizations with a view to mobilizing increased international funding for local authority programmes. An important goal would be to support, extend and improve existing institutions working in the field of local authority capacity-building and local environment management. For this purpose:

(a) UNDP, with the help of UNCHS and others, could be called upon to provide a secretariat service to collect information on local authority strategies needing international funding; 36/

(b) Periodic consultations involving both international partners and developing countries could review strategies and consider how such international funds could best be mobilized. Such a sectoral consultation would complement concurrent country-focused consultations such as those taking place in consultative groups and round tables. 37/

54. Representatives of associations of local authorities should establish processes to increase the exchange of information, experience and mutual technical assistance among local authorities. The facilitative help of Habitat should be offered. 38/

4. Means of implementation

(a) Financing and cost evaluation

55. Financing for the first activity would be at the local level. In general, donors have not given high priority to funding for urban local authorities and the institutions that these local authorities have themselves established to provide them with training and support. International funding will play a catalytic role and be especially helpful in training, institution building and in introduction of new approaches to solving urban development and environment related problems. In view of the projected increase in urban population and the increased proportion of income expected to be generated in urban communities, priority for funding urban programmes should be reassessed. Rather than estimate costs under this programme area the costs have been estimated in other parts of Agenda 21. UNDP and Habitat may be called upon to provide secretariat services for the funding and information exchange functions. These costs are estimated at $1 million annually.

(b) Human resources development and capacity-building

56. This programme should facilitate capacity-building and training activities already contained in other chapters of Agenda 21.

VI. STRENGTHENING THE ROLE OF TRADE UNIONS

(Section III, chapter 6 of Agenda 21)

A. Introduction

57. In response to General Assembly resolution 44/228, the present chapter presents measures for strengthening the contribution of workers and their trade unions to environmentally sound and sustainable development.

B. Programme area

1. Basis for action

58. Efforts to implement sustainable development will involve adjustments and opportunities at the national and enterprise level, with workers foremost among those concerned. As their representatives, trade unions are vital actors in facilitating the achievement of sustainable development in view of their experience in addressing industrial change, the extremely high priority

they give to protection of the working environment and the related natural environment, and their promotion of equitable social and economic development. The existing network of collaboration among trade unions, and their extensive membership, provide important channels through which the concepts and practices of sustainable development can be supported. The established principles of tripartism provide a basis for strengthened collaboration between workers and their representatives, Governments and employers in the implementation of sustainable development.

2. Objectives

59. The overall objective is the alleviation of poverty and full and sustainable employment which contributes to safe, clean and healthy environments - the working environment, the community and the physical environment. Workers should be full participants in the implementation and evaluation of activities related to Agenda 21.

60. To that end the following objectives are proposed for accomplishment by the year 2000:

(a) To increase ratification of the Conventions of ILO and enact relevant national legislation, such as right to know laws;

(b) To establish bipartite and tripartite mechanisms on safety, health and sustainable development;

(c) To increase the number of environmental collective agreements aimed at achieving sustainable development;

(d) To reduce occupational accidents, injuries and diseases according to recognized statistical reporting procedures;

(e) To increase the provision of workers' education, training and retraining.

3. Activities

(a) Promote freedom of association

61. For workers and their trade unions to play a full and informed role in support of sustainable development, Governments and employers should promote the rights of individual workers to freedom of association, and the protection of the right to organize as laid down in ILO conventions. Governments should ratify and implement those conventions if they have not already done so.

(b) Strengthen participation and consultation

62. Governments should ensure that trade unions are able actively to participate in decisions on the design, implementation and evaluation of national and international policies and programmes on environment and development, including employment policies, industrial strategies, labour adjustment programmes, and technology transfers.

63. Trade unions, employers and Governments should cooperate to ensure that the concept of sustainable development is equitably implemented.

64. Joint (employer/worker) or tripartite (employer/worker/government) collaborative mechanisms at the workplace, community and national levels should be established to deal with safety, health, environment and equity, including special reference to the rights and status of women in the workplace.

65. Governments and employers should ensure that workers and their representatives are provided with all relevant information to enable effective participation in these decision-making processes.

66. Trade unions should continue to define, develop and promote policies on all aspects of sustainable development.

67. Trade unions and employers should establish the framework for a joint environmental policy, and set priorities to improve the working environment and the overall environmental performance of enterprise.

68. Trade unions should:

(a) Participate in environmental audits at the workplace and in environmental impact assessments;

(b) Participate in environment and development activities within the local community and promote joint action on potential problems of common concern;

(c) Play an active role in the sustainable development activities of international and regional organizations, particularly within the United Nations system.

(c) Provide adequate training

69. Workers and their representatives must have the right to adequate training to augment environmental awareness, ensure their safety and health, and improve their economic and social welfare. Such training should ensure that the necessary skills are available to promote sustainable livelihoods and improve the working environment. Trade unions, employers, Governments and international agencies should cooperate in assessing training needs within their respective spheres of activity. Workers and their representatives should be involved in the design and implementation of worker training programmes conducted by employers and Governments.

4. Means of implementation

(a) Financial and cost evaluation

70. Given the need to catalyze and support expanded activities in developing countries in support of freedom of association, expanded trade union participation, improvements in the working environment, and increased environment and development training for workers, approximately $300 million per annum in international financing (at $3 million per country) would be required as an initial step. For ILO to play an extended role in supporting these activities, additional resources of approximately $4 million per year would be required.

71. It should be emphasized that these "costs" would in all likelihood lead to even more significant financial benefits.

(b) Capacity-building

72. Particular attention should be given to strengthening the capacity of each of the tripartite social partners (Governments, employers' and workers' organizations) to facilitate greater collaboration towards sustainable development.

VII. STRENGTHENING THE ROLE OF BUSINESS AND INDUSTRY

(Section III, Chapter 7 of Agenda 21)

73. Business and industry 39/ play a crucial role in the social and economic development of a country. Increasing prosperity, a major goal of the development process, is contributed primarily by the activities of business and industry. Business enterprises, large and small, formal and informal, provide major trading, employment and livelihood opportunities. Business opportunities available to women are contributing towards their professional development, strengthening their economic role and transforming social systems.

74. Through more efficient production processes, preventive strategies, cleaner production technologies and procedures throughout the product life cycle, hence minimizing or avoiding wastes, the policies and operations of business and industry can have a major role in reducing impacts on resource use and the environment. 40/ Technological innovations, development, applications, transfer and the more comprehensive aspects of partnership and cooperation are to a very large extent within the province of business and industry.

75. Increasingly, business and industry, particularly transnational corporations, recognize environmental management as among the highest corporate priorities and as a key determinant to sustainable development. Enterprises are implementing "responsible care" and product stewardship policies and programmes, fostering openness and dialogue with employees and

the public and carrying out environmental audits and assessments of compliance. Enlightened leaders in business and industry are increasingly taking voluntary initiatives, promoting and implementing self-regulations and greater responsibilities in ensuring their activities have minimal impacts on human health and the environment. 41/ The regulatory regimes introduced in many countries, the growing consciousness of consumers and general public and enlightened leaders of business and industry have all contributed to this. There is a need for a stable regime that enables and encourages business and industry to operate responsibly and efficiently and to implement longer-term policies.

76. Improving production systems through technologies and processes that utilize resources more efficiently and at the same time produce less wastes - achieving more with less - is an important pathway towards sustainability for business and industry. Similarly, facilitating and encouraging inventiveness, competitiveness and voluntary initiatives are necessary for stimulating more varied, efficient and effective options. To address these major requirements and strengthen further the role of business and industry, two programmes are proposed.

Programme areas

A. Promoting cleaner production

1. Basis for action

77. There is increasing recognition that production, technology and management which use resources inefficiently, form residues that are not reused, discharge wastes that have adverse impacts on human health and the environment and manufacture products which when used have further impacts and are difficult to recycle, need to be replaced with technologies, good engineering and management practices and know-how that would minimize waste throughout the product life cycle. The concept of cleaner production implies striving for optimal efficiencies at every stage of the product life cycle. 42/ A result would be the improvement of the overall competitiveness of the enterprise. The need for a transition towards cleaner production policies was recognized at the UNIDO-organized ministerial-level Conference on Ecologically Sustainable Development, held in Copenhagen in October 1991. 43/

2. Objectives

78. The primary objectives are to increase the efficiency of resource utilization, including increasing the reuse and recycling of residues, and to reduce the quantity of waste discharge per unit of economic output.

3. Activities

79. Governments, business and industry, including transnational corporations, should strengthen partnerships to implement the principles and criteria for sustainable development.

80. Governments should identify and implement an appropriate mix of economic instruments (see A/CONF.151/PC/50) and normative measures such as laws, legislations and standards, in consultation with business and industry, that will promote the use of cleaner production, with special consideration for small- and medium-size enterprises. Voluntary private initiatives should also be encouraged.

81. Governments, business and industry, academia and international organizations should develop full cost pricing concepts and methodologies for implementation (see A/CONF.151/PC/100/Add.8, programme area A).

82. Governments should promote technological and know-how cooperation, encompassing identification, assessment, research and development, management marketing and application of cleaner production between enterprises.

83. Industry should incorporate cleaner production policies in all its operations and investments, taking also into account its influence on suppliers and consumers.

84. Industry and business associations should cooperate with workers and trade unions to continuously improve the knowledge and skills for implementing sustainable development operations.

85. Industry and business associations should encourage individual companies to undertake programmes for improved environmental awareness and responsibility at all levels to make these enterprises dedicated to the task of improving environmental performance.

86. International organizations should increase education, training and awareness activities relating to cleaner production, in collaboration with industry, academia and relevant national and local authorities.

87. International and non-governmental organizations including trade and scientific associations should strengthen cleaner production information dissemination by expanding existing databases as well as forge networking of national and international information systems.

4. Means of implementation

Financial and cost evaluation

88. Although the investments for cleaner production will yield benefits for the enterprise, the costs involved could not be estimated 44/ because of the

evolving goal towards cleaner and cleaner production with improvements in technology and experience; the wide differences in operations amongst business and industry; and the range of options that could be considered for promoting cleaner production.

89. The implementation of cleaner production policies helps an enterprise to use resources more efficiently and discharge less wastes needing to be treated, hence accruing benefits for the enterprise, 45/ thus it is expected that the major portion of the costs would be borne by the enterprise. The use of appropriate regulatory measures and economic instruments by Governments will help facilitate the speedier transition towards cleaner production.

B. Promoting responsible enterpreneurship

1. Basis for action

90. Entrepreneurship is one of the most important driving forces for innovations, increasing market efficiencies, and responding to challenges and opportunities. Small- and medium-size entrepreneurs, in particular, play a very important role in the social and economic development of a country. Often, they are the major means for rural development, increasing off-farm employment, and providing the transitional means for improving the livelihoods of women. Responsible entrepreneurship can play a major role in improving the efficiency of resource use, reducing risks and hazards, minimizing wastes and safeguarding environmental qualities.

2. Objectives

91. The following objectives are proposed:

(a) To encourage the concept of stewardship in the management and utilization of natural resources by entrepreneurs;

(b) To increase the number of entrepreneurs engaged in enterprises that subscribe to and implement sustainable development policies.

3. Activities

92. Governments should implement necessary measures that will facilitate the establishment and operations of sustainably managed enterprises. The mix would include regulatory measures, economic incentives, streamlining of administrative procedures to assure maximum efficiency in dealing with applications for approval, in order to facilitate investment decisions, advice and assistance with information, infrastructural support and stewardship responsibilities.

93. Governments should help promote the establishment of venture capital funds for sustainable development projects, in collaboration with financial institutions.

94. Governments should conduct training courses on planning and operation of sustainable enterprises, in collaboration with business, industry, academia and international organizations. Attention should also be directed towards apprenticeship schemes for youth.

95. Transnational corporations should establish world-wide corporate policies on sustainable development, arrange for environmentally sound technologies to be available to affiliates in developing countries without extra external charges, encourage overseas affiliates to modify procedures in order to reflect local ecological conditions and share experiences with local authorities, national Governments and international organizations.

96. Large-scale business and industry, including transnational corporations, should establish partnership schemes with small- and medium-size enterprises to help facilitate the exchange of experience in managerial skills, market development and technological know-how, where appropriate with the assistance of international organizations.

97. Business and industry should establish national councils for sustainable development 46/ and help promote entrepreneurship in the formal and informal sectors. The inclusion of women entrepreneurs should be facilitated.

98. Business and industry should increase research and development of environmentally sound technologies and environmental management systems, in collaboration with academia and the scientific/engineering establishments, drawing upon indigenous knowledge where appropriate.

99. Business and industry should ensure responsible and ethical management of products and processes from the point of view of health, safety and environmental aspects. To this end business and industry should increase self-regulation, guided by appropriate codes, charters and initiatives 41/ integrated into all elements of business planning and decision-making, and fostering openness and dialogue with employees and the public.

100. Multilateral and bilateral financial aid institutions should increase their assistance to small- and medium-scale entrepreneurs engaged in sustainable development activities.

101. United Nations organizations and agencies should improve mechanisms for business and industry inputs, policy and strategy formulation processes, to ensure that environmental aspects are strengthened in foreign investment.

102. International organizations should increase support for research and development on improving the technological and managerial requirements for sustainable development, in particular for small- and medium-size enterprises in developing countries.

4. Means of implementation

103. Financing and cost evaluation: the activities included under this programme area are mostly changes in the orientation of existing activities and additional costs are not expected to be significant. The cost of activities by Governments and international organizations are already included in other programme areas.

VIII. THE SCIENTIFIC AND TECHNOLOGICAL COMMUNITY

(Section III, Chapter 8 of Agenda 21)

104. The present chapter was prepared as further development of A/CONF.151/PC/52. This chapter focuses on how to enable the scientific and technological community to make a more open and effective contribution to the decision-making processes of environment and development. 47/ It is important that the role of the sciences in human affairs be more widely known and better understood, both by decision makers who help determine public policy, and by the general public: the cooperative relationship existing between the scientific and technological community and the general public should be extended and deepened. Improved communication and cooperation between the scientific and technological community and decision makers will facilitate greater use of scientific information and knowledge in policies and programme implementation. Decision makers should create more favourable conditions for improving training and independent research in sustainable development. Existing multi-disciplinary approaches will have to be strengthened and more interdisciplinary studies developed. The public must be assisted in communicating their sentiments to the scientific and technological community concerning how science and technology should be managed to affect their lives in a beneficial way. By the same token, the independence of the scientific and technological community to investigate and publish without restriction and to exchange their findings freely must be assured. 48/ The adoption and implementation of ethical principles and codes of practice for the scientific and technological community that are internationally accepted will enhance professionalism and help hasten better overall recognition of the quality of its work.

Programme areas

A. Improving communication and cooperation between the scientific and technological community and decision makers

1. Basis for action

105. The scientific and technological community and policy makers must increase their interaction in order to implement strategies for sustainable development on the basis of the best available knowledge. This implies that

decision makers should provide the necessary framework for rigorous research and for free communication of the findings of the scientific and technological community, and develop with it ways in which research results and the concerns stemming from the findings can be communicated to decision-making bodies so as to better link scientific and technical knowledge with strategic policy and programme formulation. At the same time, this dialogue would assist the scientific and technological community in developing research priorities and proposing actions for constructive solutions. An example is the Intergovernmental Panel on Climate Change.

2. Objectives

106. The following objectives are proposed:

(a) To extend and open up the decision-making process and broaden the range of developmental and environmental issues where national and international cooperation between the scientific and technological community and decision makers can take place;

(b) To improve the exchange of knowledge and concerns between the scientific and technological community and the general public, to enable policies and programmes to be better understood and supported. 49/

3. Activities

107. Governments should undertake the following activities:

(a) To strengthen and widen the membership of national scientific and technological advisory councils and committees with the aim of making them more representative of various strands of public opinion. A comprehensive review of how the national scientific and technological activities could be more responsive to sustainable development needs should be part of an overall effort to strengthen national research and development systems;

(b) To promote regional cooperative mechanisms to address regional needs for sustainable development, which could be a role for regional organizations;

(c) To develop appropriate mechanisms for increased scientific inputs into intergovernmental consultative, cooperative and negotiating processes towards international agreements;

(d) To strengthen science and technology advice to the highest levels of the United Nations, in order to ensure the inclusion of science and technology in sustainable development policies and strategies;

(e) To improve and strengthen programmes for disseminating research results of universities and research institutions. This requires recognition of and greater support to the scientists and teachers who are engaged in

communicating and interpreting scientific and technological information to policy makers, professionals in other fields, and the general public. The publication of national scientific research reports that are understandable and relevant to local sustainable development needs would also improve the interface between science and decision-making. 50/

4. Means of implementation

108. Financing and cost evaluation: between $10 and 15 million per year of international financing will be needed.

109. Capacity-building: intergovernmental panels on development and environmental issues should be organized, with emphasis on their scientific aspects, and studies of responsiveness and adaptability in subsequent programmes of action, drawing upon the experience of the Intergovernmental Panel on Climate Change.

B. Promoting ethical principles and codes of practice related to science and technology

1. Basis for action

110. This programme area will draw upon the agreed principles of the Earth Charter and will specifically focus on ethical principles and codes of practice related to science and technology to protect the biosphere for sustainable development. These issues relate to the social responsibility of not only the practitioners of science and technology, but also the users of those findings. In addition, scientists have a special set of responsibilities which belong to them both as inheritors of a tradition and as professionals and members of disciplines devoted to the search for truth.

111. A strengthening of the ethical principles, codes of practice and guidelines for the scientific and technological community would both increase environmental awareness and contribute to sustainable development. It would build up the level of esteem and regard for the scientific and technological community and facilitate the "accountability" of science and technology. Increased ethical awareness in environmental and developmental decision-making should help to place appropriate priorities for the maintenance and enhancement of life support systems for their own sake, and in so doing ensure that the functioning of viable natural processes is properly valued by present and future societies.

2. Objectives

112. The objective should be to develop, by the year 2000, internationally accepted ethical principles, codes of practice and guidelines relating to science and technology in which the integrity of life support systems is

comprehensively accounted for and where the important role of science and technology in reconciling the needs of environment and development is accepted. To be effective in the decision-making process, such principles, codes of practice and guidelines must not only be agreed upon by the scientific and technological community, but also endorsed by decision makers.

3. Activities

113. The following activities should be undertaken:

(a) To undertake a review of all existing relevant ethical principles, codes of practice and guidelines prepared by Governments, United Nations agencies, international organizations, as well as the scientific and technological professions, and disseminate this information;

(b) To strengthen national and international cooperation to develop ethical principles, codes of practice, and guidelines regarding environmentally sound and sustainable development, taking into account the principles of the Earth Charter and the above-mentioned review; 51/

(c) To strengthen and establish national advisory groups on environmental and developmental ethics, in order to develop a common value framework between the scientific and technological community and decision makers, and promote continuous dialogue;

(d) To extend education and training in developmental and environmental ethical issues to integrate such objectives into national education curricula and research priorities; 52/

(e) To review and amend relevant national and international environment and development legal instruments to ensure appropriate ethical principles, codes of practice and guidelines are incorporated into such regulatory machinery;

(f) To promote regular forums for discussion and consultation among policy makers, religious groups, scientists, and the general public.

4. Means of implementation

114. Financing and cost evaluation: about $5 million per year of international financing will be needed over the period 1993-2000.

115. Capacity-building: international agreements should be negotiated and reached on appropriate ethical principles, codes of practice and guidelines for the scientific and technological community in the pursuit of its research activities and implementation of programmes aimed at sustainable development. UNESCO might take the lead in implementing the above-mentioned activities, with the collaboration of other United Nations agencies, and intergovernmental and non-governmental organizations.

IX. STRENGTHENING THE ROLE OF FARMERS

(Section III, Chapter 9 of Agenda 21)

Basis for action

116. Agriculture occupies one third of the land surface of the Earth and is the central activity for much of the world's population. Farming takes place in close contact with nature, adding value to it by producing renewable resources, while at the same time becoming vulnerable to overexploration and improper management.

117. The peasant household and the family farmer, a substantial number of whom are women, have been the stewards of much of the Earth's resources. Farmers must conserve their physical environment as they depend on it for their sustenance. Over the past 20 years there has been impressive increase in aggregate agricultural production. Yet in some regions this increase has been outstripped by population growth or international debt or falling commodity prices. Further, the soils that sustain farming activity need proper care, and there is a growing concern about the sustainability of agricultural production systems.

118. A farmer-centred approach is the key to the attainment of sustainable agriculture in both developed and developing countries and many of the programme areas included in Agenda 21 address the objective of sustainable agriculture (see A/CONF.151/PC/100/Add.19). A significant number of the rural population in developing countries depend primarily upon small-scale, subsistence-oriented agriculture based on family labour. However, they have limited access to technology, alternative livelihood and means of production. As a result, they are engaged in the overexploration of land resources, including marginal lands.

119. The sustainable development of people in marginal and fragile ecosystems is also addressed in Agenda 21 (see A/CONF.151/PC/100/Add.18). The key to the successful implementation of these programmes lies in the motivation and attitudes of individual farmers and government policies that would provide incentives to farmers to manage the land properly. Farmers face a high degree of economic, legal and institutional uncertainties when investing in their land. The decentralization of decision-making towards local and community organizations is the key in changing people's behaviour and implementing sustainable agriculture strategies. This programme area deals with activities which can contribute to this end.

Objectives

120. The following objectives are proposed:

(a) To ensure a decentralized decision-making process through the creation and strengthening of local and village organization that would delegate power and responsibility to primary users of land;

(b) To support and enhance the legal capacity of women with regard to access and rights to land (see sect. I above);

(c) To promote and encourage farming practices and technologies that would increase the productivity from land in a sustainable way;

(d) To introduce polices that would encourage low-input and low-energy farm technologies and set prices for agricultural inputs that reflect their environmental cost;

(e) To develop a policy framework that provides incentives and motivation among farmers for sustainable agricultural practices;

(f) To enhance the participation of farmers in the design and implementation of policies directed towards these ends, through their representative organizations.

Activities

Management-related

121. National Governments should:

(a) Ensure the full implementation of the programmes on sustainable livelihoods, agriculture and rural development, managing fragile ecosystems, water use in agriculture, integrated management of land resources, fisheries and forestry. This is essential, if the farming community is to fulfil its responsibilities for sustainable development (see A/CONF.151/PC/100/Add.16-19);

(b) Support prices, trade policies, fiscal incentives and other policy instruments that affect individual farmer's decisions about the use of land, water and forest resources, and take full account of the impact of these decisions on food security, farm incomes, employment and the environment;

(c) Involve farmers (men and women) and their representative organizations in the policy formulation exercise and set up a permanent body to deliberate on these issues;

(d) Protect, recognize and formalize women's rights to land, technology, inputs, training and eliminate restrictions and biases in agrarian and rural development policies through legal and administrative measures (see sect. I above);

(e) Support the formation of farmers' organizations by providing a legal, promotional and consultative framework for the establishment and development of representative farmers' organizations and cooperatives.

122. Farmers' organizations should:

(a) Cooperate with national and international research centres in developing location-specific environment-friendly farming techniques;

(b) Collaborate with national Governments, multilateral and bilateral development agencies and non-governmental organizations in tailoring agricultural development projects to specific agro-ecological zones.

Data and information

123. National Governments and farmers' organizations should:

(a) Initiate mechanism to document, synthesize and disseminate project experiences so that they will make use of the lessons of past interventions when formulating and implementing policies affecting farming population;

(b) Establish networks for the exchange of experiences with regard to agricultural practices that help to conserve land, water and forest resources, economize in the use of chemicals and reduce or reutilize farm wastes;

(c) Develop pilot projects and extension services that would seek to build on the knowledge base of women farmers.

International and regional cooperation

124. FAO, IFAD, WFP, the World Bank, the regional development banks and other international organizations involved in agricultural development should involve farmers and their representatives in their deliberations.

125. The International Federation of Agricultural Producers should establish programmes for the development and support of farmers' organizations, particularly in developing countries.

Means of implementation

126. Financing and cost evaluation: the financing needed for this programme area is estimated in sustainable agricultural and rural development, particularly in programme area "Ensuring people's participation and promoting human resource development". The cost shown under the chapters on sustainable mountain development, combating desertification and drought, and combating poverty and meeting basic needs are also relevant for this programme area (see A/CONF.151/PC/100/Add.2, 17, 18 and 19).

127. Scientific and technological means: national Governments, appropriate international organizations and non-governmental organizations should:

(a) Develop farming technologies that enhance crop yields and intensity, maintain land quality, recycle nutrients, conserve water and energy, and control pests;

(b) Conduct studies of high-input and low-input agriculture to compare their productivity and sustainability. The research should be conducted under various environmental and sociological settings;

(c) Support research on mechanization that would optimize human labour and animal power and hand-held and animal-drawn equipment that can be easily operated and maintained. The development of farm technologies should take into account resources available to farmers and the role of animals to farming households and in the ecology.

128. Human resource development: national Governments with the support of multilateral and bilateral development agencies and scientific organizations should develop curricula for agricultural colleges and training institutions that would integrate ecology into agricultural science. Interdisciplinary programmes in agricultural ecology are essential to the training of a new generation of agricultural scientists and field-level extension agents.

129. Capacity-building: national Governments should:

(a) Create the institutional and legal mechanisms to give effective land tenure to farmers who demonstrate that they are conserving and utilizing resources properly. The absence of legislation indicating land rights has been an obstacle in taking action against land degradation in many farming communities in developing countries;

(b) Strengthen farmers' institutions that would enhance locally managed credit systems, small facilities for producing agricultural inputs and agricultural equipment, and marketing systems;

(c) Establish mechanism to increase women farmers' access to agricultural training and use of improved farming technology for ensuring food security.

Notes

1/ In decision 3/5, the Preparatory Committee also requested the Secretary-General to ensure that relevant meetings held by governmental, intergovernmental and non-governmental organizations on women in environment and development be submitted to it. These include the World Women's Congress for a Healthy Planet; The Global Assembly of Women and Environment and its regional meetings; the UNCED/UNICEF/UNFPA sponsored symposium "Women and Children First"; the Commonwealth Secretariat's Expert Group Meeting on Environment; the Inter-American Commission of Women of the Organization of American States as well as regional and national meetings. These meetings have adopted recommendations, inter alia, to increase women's decision-making roles and support and enhance women's initiatives and contributions to environmental management and sustainable development particularly at the grass-roots level through more people-oriented policies in both the North and South. They also called for the elimination of poverty and political conflicts which have a differential impact on women and children and result from unsustainable political and economic policies and development programmes (see also A/CONF.151/PC/114).

Notes (continued)

2/ Report of the World Conference to Review and Appraise the Achievements of the United Nations Decade for Women: Equality, Development and Peace, Nairobi, 15-26 July 1985 (United Nations publication, Sales No. E.85.IV.10), chap. I, sect. A.

3/ General Assembly resolution 45/125 on the implementation of the Nairobi Forward-looking Strategies stresses the importance of the total integration of women in the development process. The Conference adopted a Plan of Action in 1985 based on the objectives of the United Nations Decade for Women under the title "Equality, Development and Peace" and addressed the issue of the environment under the chapter on "Development", thereby recognizing the importance of the linkage between environment and development.

The Strategies also contain recommendations in a number of sectoral and cross-sectoral areas which have important implications for sustainable development. These include food, water and agriculture; industry; science and technology; housing, settlement, community development and transport; health; energy; and areas of special concern which deal with poverty and vulnerable women (see related chapters in Agenda 21).

Conventions relevant to programme area: The Charter of the United Nations reaffirms faith in the fundamental human rights, in the dignity and worth of the human person and in the equal rights of men and women. The Convention on the Elimination of All Forms of Discrimination Against Women was adopted on 18 December 1979 by General Assembly resolution 34/180 and entered into force on 3 September 1981. It has now been ratified by 110 countries. Article 1 states that:

> "For the purpose of the present Convention, the term 'discrimination against women' shall mean any distinction, exclusion or restriction made on the basis of sex which has the effect or purpose of impairing or nullifying the recognition, enjoyment or exercise by women, irrespective of their marital status, on a basis of equality of men and women, of human rights and fundamental freedoms in the political, economic, social, cultural, civil or any other field."

Other articles of relevance to the implementation of Agenda 21 are articles 7 and 8 on Political Participation; articles 13, 14 and 15 on several aspects of development including the right of rural women.

ILO Conventions: Five conventions adopted by the General Conference of the International Labour Organisation deal with specific rights of women, and at least 15 contain provisions with implications for the status of women and for the importance of an environmentally safe workplace (see also chapter on trade unions).

UNESCO Convention: This Convention Against Discrimination in Education was adopted by the General Conference of the United Nations Educational,

Notes (continued)

Scientific and Cultural Organization on 14 December 1960 and entered into force on 22 May 1962 in accordance with its article 14 (see also chapter on education).

Basis for Action for the Girl Child and the Teenage Girl: The World Summit for Children adopted the 1990 Declaration on the Survival, Protection and Development of Children and the Plan of Action for implementing the World Declaration in the 1990s which reiterated the broad commitment to the advancement of girls and women. Each country is expected to provide a report for the mid-decade review to be undertaken by the Secretary-General of the United Nations. The Convention on the Rights of the Child, inter alia, deals with responsibilities of both parents in the upbringing and development of the child and the role of States Parties in supporting the efforts of parents. (See also The Girl Child: An Investment in the Future, UNICEF, New York, 1991.)

4/ The record of women in decision-making positions shows a slight narrowing of the gender gap in public life and leadership positions since the end of the United Nations Decade for Women but only 12 per cent of Parliamentarians are women. Only 4 per cent of the 159 member States at the end of 1990 were headed by women. Of all cabinet ministers only 3.5 per cent are women and in 49 countries women were not represented in decision-making positions at the highest levels of government. When women are represented in government leadership they tended to be confined to ministries of education, culture, social welfare and women's affairs (The World's Women 1970-1990: Trends and Statistics, United Nations, 1991).

The World's Women notes: "Women can make a substantial contribution to economic development if they are trained in agriculture, forestry and fishing, particularly in developing countries, where such activities predominate. But they are still denied access to this training and men continue to dominate the field. In 1970 the average ratio of women to men in advanced studies in these fields was 1 to 10 in all developing regions. Women's representation improved significantly by 1984 in developed regions and in Latin America and the Caribbean, reaching about 1 to 2, but it lagged far behind in Africa and in Asia and the Pacific, where the ratio was still 1 to 5 in 1984."

5/ National machineries which consist of women's bureaux, desks, ministries etc., were established during the United Nations Decade for Women: Equality, Development and Peace. They are not only central institutions at the national level but in some cases constitute a comprehensive network in the form of commissions, offices or posts at different levels including the local administrative level. The Global Assembly of Women and Environment and the World Women's Congress for a Healthy Planet adopted recommendations in Miami on 8 and 12 November 1991 to strengthen women's successful initiatives and activities in promoting sustainable development (see A/CONF.151/PC/114).

Notes (continued)

6/ Among the objectives adopted by the World Summit for Children was the reduction of adult illiteracy rates to at least half its 1990 level with emphasis on female illiteracy (see also chapter on education).

7/ The rate of maternal mortality is estimated to be about 500,000 each year (World Declaration on the Survival, Protection and Development of Children and its Plan of Action, UNICEF, United Nations, New York, 1990). Reduction of maternal mortality by half by the year 2000 using 1990 as the baseline year is one of the objectives adopted by the World Summit for Children. (See also the Report of the International Conference on Population, Mexico City, 1984). The Nairobi Forward-looking Strategies for the Advancement of Women state that:

> "Governments should make available, as a matter of urgency, information, education and the means to assist women and men to take decisions about their desired number of children. To ensure a voluntary and free choice, family-planning information, education and means should include all medically approved and appropriate methods of family planning" (para. 157).

8/ The 1989 World Survey on the Role of Women in Development noted that the economic crisis of the 1980s has had a differential impact on women often with disappointing results and colouring all aspects of women's lives. The economic conditions of the 1980s contributed to a slowing of progress in advancement, a near stagnation that could threaten the future ability of women to achieve equality. Malnutrition among women is often considered one of the effects adjustment policies and the economic crisis may have on women (see also chapter on household poverty).

9/ The UNCED/UNICEF/UNFPA sponsored symposium "Women and Children First" on the impact of poverty on environmental degradation and the contribution of women and children to sustainable development, held in Geneva in May 1991, considered the problems of consumption patterns and environmental degradation. The report of the Symposium was made available to the Preparatory Committee as Research Paper No. 2 and its recommendations are contained in A/CONF.151/PC/114 (see also chapters on consumption patterns and demographic pressures).

10/ Education is one of the sub-themes of the Nairobi Forward-looking Strategies, which recommended that the curriculum of public and private schools should be examined, textbooks and other educational materials reviewed and educational personnel retrained in order to eliminate all discriminatory gender stereotyping in education. Educational institutions should be encouraged to expand their curricula to include studies on women's contributions to all aspects of development (see also chapter on education).

11/ The Commission on the Status of Women will consider the issue of environment at the thirty-sixth session (1992) under the priority theme of

Notes (continued)

Development. A review of the system-wide medium-term plan for women and development for the period 1990-1991 shows limited success in that 14 out of the 23 organizations reporting had increased their resources devoted to women in development whilst 9 reported a decrease in resources (see E/1991/16).

12/ In many parts of the developing world women are the major environmental managers on a practical day-to-day basis (see A/CONF.151/PC/114).

13/ See the 1989 Commonwealth Secretariat's study entitled Engendering Adjustment for the 1990s resulting from an Expert Group Meeting on "Women and structural adjustment". The study, which focused on women's roles as producers and reproducers and community managers, noted the differential impact of structural adjustment on women.

Annexed to the communiqué of Heads of Government of the Commonwealth held in Harare, Zimbabwe, 16-22 October 1991 (A/46/708, annex) is the "Ottawa Declaration on Women and Structural Adjustment". It stated inter alia that "... It is especially important that programmes in primary health care, nutrition, family planning and education and training are not impaired. Greater advances for women in these areas must be maintained" (para. 4). It also called for the reform of social, legal and administrative structures to give women full rights to land, finance and other resources and to encourage investments in women's productive activities.

14/ The advancement of women was one of the priorities of the Organization for the biennium 1990-1991.

15/ The percentage of women at the level of D-1 and above in 1991 is 8.6 per cent (see A/46/377). In 1991 the Economic and Social Council in resolution 1991/17 endorsed a decision on the improvement of the status of women in the Secretariat, in which the Council strongly encouraged Member States to support the efforts of the United Nations and its specialized agencies to increase the percentage of women in Professional posts, especially at the D-1 level and above.

16/ The World Women's Congress in Miami, United States of America, in its Women's Agenda 21, of 12 November 1991, recommended an increase of the level of funding for UNIFEM to $150 million annually by the year 2000. It stated that these funds are essential if UNIFEM is to enhance its catalytic role in providing resources and empowerment to poor women.

17/ Age group qualifications for youth varies. For the purposes of this document the age reference will be 14-30 years of age.

18/ Within the United Nations system there have been a number of General Assembly decisions on youth, particularly over the last 20 years. Several United Nations agencies have also undertaken programmes to promote youth; however, many have not been fully implemented. Recent initiatives have attempted to remedy this, including the following:

Notes (continued)

(a) The Youth Forum of the United Nations Office in Vienna Centre for Social Development and Humanitarian Affairs, May, 1991. The Forum assessed the conditions of youth and youth non-governmental organizations within the United Nations system. Youth organizations within the United Nations system, and youth representatives from national and international organizations developed recommendations and action strategies for the United Nations and its Member States, as well as for youth organizations. Several recommendations for networking and for strengthening existing communications structures among youth organizations, Governments and international organizations were also made. The World Youth Programme of Action Towards the Year 2000 and a proposed biennial conference in 1995 to commemorate the tenth anniversary of the 1985 Year of Youth originated in two specific recommendations growing out of this consultative process;

(b) The UNEP Youth Ambassadors and the UNEP Youth Forum: initiated in 1990 and 1991, respectively, to promote public awareness and information exchanges between youth internationally;

(c) The Youth NGO World Initiative for Children, UNICEF: On The Move Action Kit for Youth. This document is a direct outcome of the Youth Non-Governmental Organizational Round Table for Children held in September 1990 in Geneva;

(d) The Commonwealth Youth Affairs Programme.

19/ One continuing concern of youth groups is that Governments might seek to control the appointment process. In general, youth should be able to select their own representatives to any consultative process. Youth often are not well represented as a population group in non-governmental organizations and their activities. National Governments and non-governmental organizations should give wider recognition to the youth movement and youth views on environment and development issues. Dialogue should expand to involve as many youth as possible, including the majority not now represented by organizations.

20/ Youth have often implemented or catalysed substantial change within their communities, schools and homes, often developing innovative, low-cost solutions to environment and development problems.

21/ At the international level, the following could help provide Governments with guidance on youth issues.

(a) The World Youth Forum on Environment and Development, Costa Rica, March 1992;

(b) The Youth Forum, United Nations Office in Vienna (see note 18);

(c) The public forums, in liaison with the Center for Our Common Future, held in parallel to the Conference process.

Notes (continued)

22/ The 1990 Convention on the Rights of the Child contains provisions that specifically apply to the survival, development, protection and participation of all children. Also see chap. I, sect. 2 on Combating poverty and meeting basic needs

23/ There is a critical need to alert, educate and mobilize young people on issues such as AIDS, teenage pregnancy, employment opportunities, etc. The issues to be addressed should be selected in consultations with youth representatives.

24/ Indigenous and tribal peoples may be descendants of the original inhabitants of lands which were conquered or settled by other peoples, or they may be groups who are not descended from such inhabitants but who live in similar situations. In general, they are self-identified, distinct societies, with their own languages, laws, institutions, traditions, and ways of life that differ from the dominant communities in which they now live. Many of them have been partially assimilated into the dominant communities, but retain some of their traditional characteristics. See the United Nations Study of the Problem of Discrimination against Indigenous Populations, and ILO Convention Nos. 107 and 169 (art. 1 of each instrument).

25/ The international legal instruments covering indigenous and tribal peoples can be divided into those that are specifically aimed at them and those that deal with them among other groups.

Two specific conventions covering indigenous peoples have been adopted by the International Labour Organisation in cooperation with other parts of the United Nations system. They are the Indigenous and Tribal Populations Convention, 1957 (No. 107) and the Indigenous and Tribal Peoples Convention, 1989 (No. 169). Convention No. 169 revised No. 107 which is now closed to further ratification but remains binding on 24 countries. Convention No. 169 has been ratified by four countries (as at 11 November 1991).

The Working Group on Indigenous Populations of the Subcommission on Prevention of Discrimination and Protection of Minorities has been working on a draft universal declaration on the rights of indigenous peoples since 1985, and hopes to complete it by 1993. The latest draft of the declaration is included in the Report of the Working Group on Indigenous Populations on its ninth session (E/CN.4/Sub.2/1991/40/Rev.1).

International human rights instruments applicable to the population generally also contain special provisions on indigenous and tribal peoples, such as the Convention on the Rights of the Child (arts. 17, 29 and 30). International law on minorities and prevention of discrimination applies also to indigenous and tribal peoples, including the Universal Declaration of Human Rights (art. 7), the International Covenant on Civil and Political Rights (art. 27), the International Convention on the Elimination of All Forms of Racial Discrimination, and others.

Notes (continued)

26/ A precedent has been established for regional cooperation by the Presidents of the member countries of the Treaty for Amazonian Cooperation (see A/35/580, annex). On 6 and 7 March 1989, they established the Amazonia Special Commission on Indigenous Affairs (see A/44/275-E/1989/79, annex), to promote cooperation on indigenous issues among countries of the Amazon in a number of fields, including the protection of indigenous cultural heritage and traditional knowledge.

27/ This chapter addresses the role of non-profit organizations. The role of business and industry is discussed in a separate chapter. In addition to being encompassed within the proposals in this chapter, the roles of other sectors such as trade unions, as well as key groups such as women, youth and indigenous peoples are considered in more detail in separate chapters of Agenda 21.

28/ These fields include, inter alia, raising public awareness of sustainable development practices; research into the root causes of and interlinkages between environmental and developmental problems; collection and analysis of the information required to inform public policy formulation; development of alternative policies and methods in relevant fields; implementation of and support for community-based programmes involving integrated approaches to poverty alleviation and environmental degradation; capacity-building in local communities for self-development; establishment of early warning systems to pre-empt environmental disasters; and contribution to debate in the international policy arena, expressing the views of various sectors of the population.

29/ See sect. I, chap. 7, programme A "Integrating environment and development at the policy, planning and management level".

30/ See sect. IV, chap. 9, programme C "Monitoring, review, and evaluation of Agenda 21".

31/ See sect. IV, chap. 9, programme B "Improving access to information".

32/ See sect. I, chap. 7, programme A "Integrating environment and development at the policy, planning and management level".

33/ See sect. IV, chap. 4, programme B, "Increasing public awareness".

34/ See sect. IV, chap. 9, programme B "Improving access to information".

35/ The secretariat is aware of several helpful initiatives. The World Association of the Major Metropolises adopted resolutions on urban sustainable development in Melbourne in October 1990. The United Towns Association adopted similar resolutions in their Cordoba Congress in November 1990. The International Union of Local Authorities at its thirtieth World Congress 23-27 June 1991 adopted an "Oslo Declaration on Environment, Health and

Notes (continued)

Lifestyle". There was a Five Cities Consultation Project and Declaration which met in Sao Paulo in July 1991. There was a Declaration of Villa de Leyva in Bogota in August 1991. A meeting on "World Cities and their Environment" adopted the "Toronto Declaration" in August 1991. The third Summit of World's Major Cities adopted a "Montreal Declaration" in October 1991. The International Council for Local Environmental Initiatives (ICLEI) has established a "Local Agenda 21 Project" to assist local authorities on a world-wide basis in preparing local Agenda 21. The city of Curitiba, Brazil, will host a "World Urban Forum" in May 1992, related to the UNCED process.

36/ Also useful in this connection, ICLEI has proposed that a programme under the auspices of UNEP could integrate computerized information exchange networks with those of local authority organizations including ICLEI's Norwegian-funded local environment initiatives communications project with a view to creating a United Nations global monitoring system providing information to local managers. An ongoing initiative is Habitat's City Data Programme, whose purpose is to assist cities in establishing computerized databases on key urban environment and development indicators and provide a global framework for the exchange and dissemination of such data.

37/ Members of OECD's Development Assistance Committee last reviewed assistance to urban areas in 1986. Inter alia DAC concluded "... the experience of the past underscores the need for all the participants involved in promoting development to work together - central governments, local governments, the private sector, communities, NGOs and the international and bilateral agencies" (see Development Cooperation, 1987 Report).

38/ The functions for which Habitat is here assigned the lead role should be carried out primarily by international and national organizations of local authorities. The International Union of Local Authorities (IULA) and the International Council for Local Environmental Initiatives (ICLEI) have both offered to collaborate.

39/ There are many definitions and classifications for business and industry. In this chapter, business and industry denotes all manufacturing, mining, utilities, services and commerce, big and small, private and public owned, operating nationally and transnationally. The manufacturing value added share of the GDP in 1988, from the UNIDO Global Econometric Database, was 24.10 per cent. Data for other sectors of business and industry is not available. Business and industry's role in social and economic development will be greater than the figure indicated, because it represents a large part of the wealth creation of nations, on which the other parts of society rely.

40/ In the OECD region, improvements in efficiency have resulted, for example, in the chemical industry that while the output has more than doubled since 1970, its energy consumption per unit of output has fallen by 57 per cent. There are many accounts of impressive waste reduction

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achievements. For example, in Germany, between 1970 and 1987, the chemical industry increased output by 50 per cent, while the discharge of heavy metals was reduced between 60 and 90 per cent. In Japan, Nippon Steel Corporation managed to reduce the amount of nitrogen oxide and dust emitted by 75 per cent and 90 per cent respectively for 1 tonne of steel produced. Dow Chemicals has reduced the amount of hazardous wastes from 1 kilogram per kilogram of salable product to 1 kilogram per 1,000 kilograms.

However, in the OECD region, the overall waste emission from industry continues to increase, outpacing economic growth. In France, for example, 1 per cent of economic growth currently generates an extra 2 per cent of waste. And, in the United States, according to the Environment Protection Agency (EPA), the generation of hazardous waste is increasing at the annual rate of 7.5 per cent.

In the developing regions, countries that are fast developing are beginning to produce pollution comparable to the OECD countries. In Thailand, for example, the share of hazardous waste generating factories has increased from 29 per cent to 58 per cent during the decade between 1979 and 1989.

41/ There are a number of major voluntary initiatives taken by business and industry. These include, for example:

(a) The International Chamber of Commerce's (ICC) Business Charter for Sustainable Development, Principles for Environmental Management. The Charter was formally launched in April 1991 at the Second World Industry Conference on Environmental Management held in Rotterdam, The Netherlands. As of October 1991 over 500 companies/business organizations, from all regions of the world, had informed ICC in writing of their support for the Business Charter.

(b) The World Economic Forum's Eco-Industry Initiative is also bringing leaders from some nine key industry sectors together to examine the particular environmental aspects of their activities in the context of sustainable development and contribute to preparation for the Conference.

(c) The International Council of Chemical Associations's (ICCA) Responsible Care Initiatives and Product Stewardship is a chemical industry initiative which calls on companies to demonstrate their commitment to improve all aspects of performance related to protection of health, safety and the environment. An important feature of the initiative is that companies measure results in implementing the initiative and report to their association for an association-wide analysis of performance, and for public reporting. To get the greatest improvement, associations are making adherence to the initiative a condition of membership. Product stewardship, by ICCA, is defined as a process for the responsible and ethical management of the health, safety and environmental aspects of its product, from its invention to its ultimate use and beyond. The process constitutes the integration of management principles.

Notes (continued)

(d) The International Standards Organization's (ISO) Strategic Advisory Group on Environment (SAGE) programme aims to develop international standardization work to promote world-wide application of the key elements embodied in the concept of sustainable industrial development.

(e) The Keidanren of Japan in April 1991 adopted the Global Environment Charter. The basic philosophy of the Charter is stated to be that, a company's existence is closely bound up with the global environment as well as with the community it is based in. Each company must aim at being a good global corporate citizen, recognizing that addressing environmental problems is essential to its own existence and its activities. The guidelines in the Charter deal with a wide range of environmental, developmental, technology community relation matters.

42/ The UNEP Cleaner Production Seminar, supported by the United Kingdom Government, held in Canterbury, September 1990, defined the cleaner production concept as a new global approach to production; all phases of the life cycle of a product or of a process should be addressed with the objective of prevention or minimization of short- and long-term risks to humans and the environment. This includes a "cradle-to-grave" approach, minimizing emissions into air, water and soil, as well as minimizing energy consumption and the use of all raw materials. It means not only developing new technologies but also good operating practices. It means the total commitment of all parts of society to change the overall consumption and production patterns.

43/ The Conference recognized that industry and industrial institutions had to play a central role in the transition to ecologically sustainable industrial development.

44/ To obtain reliable costs detailed studies on a sector and process basis need to be undertaken. A good example is the cost studies carried out by UNEP for the phasing out of ozone depleting substances, particularly chloro-fluoro-carbons (CFCs). While the costs for cleaner production and environmental protection will clearly vary between business and industry sectors, and even within the same sector, as well as between countries, the President of the Conseil Européen des Fédérations de l'Industrie (CEFIC) reported at the Second World Industry Conference on Environmental Management (WICEM 2), Rotterdam, April 1991, that the European chemicals industry, which accounts for 30 per cent of world chemical production, its member companies invest 10 to 15 per cent of their total investments for environmental improvement, amounting to over US$ 2.5 billion per year.

45/ There are an increasing number of examples which have demonstrated that pollution prevention pays. Prof. D. Huisingh, for example, at the UNEP Cleaner Production Seminar in Canterbury, United Kingdom, and in his other publications, has analysed over 500 case-studies on the variety of ways by which pollution can be prevented. The 3M company, since 1975, has pioneered the "Pollution Prevention Pays" programme, and has implemented over

Notes (continued)

3,000 projects. Air pollutants were reduced by 120,000 tons, waste water by 1 billion gallons and solid waste by 410,000 tons, saving the company $537 million.

46/ A particularly relevant example is the Business Council for Sustainable Development (BCSD) set up by Stephan Schmidheiny, a Swiss industrialist in response to UNCED, which consists of over 40 business leaders from different regions of the world. The Council represents a major initiative to provide UNCED with the insight, perspective and experience of industry in respect of development and environment. In doing this it is playing a leadership role in helping industry to understand and adapt to the concept of sustainable development. The establishment of BCSD and the work it is undertaking is helping to catalyse the formation of national and regional business councils for sustainable development.

47/ This chapter is closely related to section IV, chapter 3 of Agenda 21, "Science for sustainable development", particularly as regards the need to strengthen resources and mechanisms for research and development in developing countries, to promote multidisciplinary research and to establish mechanisms for effective communication amongst various actors. It is also related to section IV, chapter 4 of Agenda 21, "Education, public awareness and training", section IV, chapter 2 of Agenda 21, "Transfer of environmentally sound technology", section IV, chapter 5 of Agenda 21, "Capacity-building in developing countries" and other chapters involving capacity-building in this and other sections of Agenda 21. These chapters present some more specific proposals promoting communication between the scientific and technological community and decision makers.

48/ The sciences should further develop their capacity to help the public make informed choices about future development options. The sciences must not only be facilitative, they must also be accountable. This means being adaptive to changes in research evidence and public opinion. It also means reaching out to the public to reflect the values, traditions and concerns of all cultures. This is the "new science" of the next century.

49/ Improved communication between decision makers and the scientific and technological community will be enhanced by a more informed relationship between the community and the public and media in general. See also sect. IV, chap. 3 of Agenda 21, "Science for sustainable development", sect. IV, chap. 4 of Agenda 21, "Education, public awareness and training", and sect. IV, chap. 9 of Agenda 21, "Integration of environment and development in decision-making".

50/ This would include the dissemination of information by and to Governments, higher education institutions and other relevant national research institutions to promote public interest in and knowledge about the relationships between science, technology, the environment and development. See also sect. IV, chap. 4 of Agenda 21, "Education, public awareness, and

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training" and sect. IV, chap. 9 of Agenda 21, "Integration of environment and development in decision-making".

51/ The principles agreed to in the Earth Charter will help provide the inputs for developing ethical principles for the scientific and technological community. This will take into account the need for equity, the intrinsic rights of life support systems and the values and traditions of indigenous peoples and minority cultures which manifestly promote the maintenance of such systems.

52/ See sect. IV, chap. 4 of Agenda 21, "Education, public awareness, and training".